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**Wild Rockies**

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November 29, 1999

Mr. Clifford Hawkes
National Park Service
Denver Service Center
12795 West Alameda Parkway
Lakewood, Colorado 80228

Re: Winter Use Plan DEIS for Yellowstone and Grand Teton National Parks

Dear Mr. Hawkes:

On behalf of the Alliance for the Wild Rockies (AWR), I am submitting comments pertaining to the Draft Environmental Impact Statement (DEIS) prepared for the Winter Use Plan for Yellowstone and Grand Teton National Parks, and John D. Rockefeller, Jr. Memorial Parkway. AWR appreciates the opportunity to comment on the DEIS and we support the Park's general effort to undertake a winter use plan to address the impacts associated with winter recreation. However, it is clear that the Preferred Alternative will not adequately address the most pressing issues facing both YNP and GTNP. General comments pertaining to the DEIS are provided below, followed by more specific comments relating to focused areas of concern.

GENERAL COMMENTS

Many of the premises supporting the Preferred Alternative are not based upon facts and/or are not credible. The DEIS states on page 27 that the "Preferred Alternative emphasizes an adaptive approach to park resource management, which would allow the results of new and ongoing research and monitoring to be incorporated, as it becomes available. Monitoring results demonstrating disturbance to wildlife or damage to park resources would be cause to implement actions for mitigating these conditions." However, the DEIS itself makes clear that resource damage has occurred for years and continues to occur, and mitigation measures to date have not adequately (if at all) controlled the damage to air quality, water quality, wildlife, geothermal resources, etc.. For example, EPA ambient air quality standards are regularly violated due to excessive emissions from snowmobiles. These air quality standards are definitive benchmarks which have been routinely ignored. Since there are no such benchmarks in place for wildlife or geothermal resources, it is hard to believe that the NPS will make the tough choices which may be required to protect our natural resources in the years ahead. Therefore, standards must not only be developed, but a mechanism must be in place to ensure that such standards are adhered to once the winter plan is implemented.

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Secondly, instead of critically examining the impacts associated with snowmobiles, the NPS seems to assume that snowmobile users have a right to such motorized uses in YNP due to their pre-existing use. The DEIS states on page 38 "snowmobile use is allowed (on designated routes only) under NPS regulations. A determination must be made that their use is consistent with parks' natural, cultural, scenic, and aesthetic values, safety consideration and management objectives, and will not disturb wildlife or damage park resources." A regulation permitting snowmobiles in effect means that snowmobile use is not automatically prohibited. However, the regulation does not mean that snowmobile use MUST be permitted. As noted in the previous paragraph, based upon air quality impacts alone, snowmobile use is not consistent with the park's management objectives. Unfortunately, the DEIS emphasizes visitor preferences over natural resource protection. Table 33 graphically illustrates this bias as five of the six impact topics identified focus on some aspect of visitor use, whereas only one of six focus on natural resources.

Third, projected impacts are misleading. The NPS readily admits huge data gaps exist for most impact areas, and many if not all of the impacts associated with existing uses and various alternatives are unknown. The DEIS itself is rife with conflicting statements, and hard data to back up most statements is lacking. Moreover, the impact characterization is misleading. Page 158 of the DEIS defines a short term effect as an effect less than 5 years and a long-term effect as a permanent effect. Impacts should be identified so that the public can readily understand the implications of various alternatives. Based upon the NPS mandate to preserve park resources for future generations, long term effects generally should not be permitted. And since scientific analysis is lacking in most instances, and what little data that does exist is typically not conclusive, the preferred alternative that is ultimately adopted should err on the side of being conservative.

Fourth, the DEIS is self-serving in that it develops a series of flawed alternatives, and then argues that the only viable alternative is the Preferred Alternative. For instance, the Preferred Alternative includes the addition of an aggressive safety and enforcement program (page 203), increased interpretive opportunities at geothermal features to heighten public awareness (page 204), eliminating unregulated backcountry use in winter range (page 210) and backcountry monitoring in GTNP to facilitate area closures for the protection of wintering bighorn sheep and moose (page 214). However, there is no logical reason to exclude any of these measures from each alternative proposed. In addition, some of the other alternatives contain management actions that should be incorporated into each alternative. For example, Alternative E proposes the elimination of motorized uses on Jackson Lake.

Finally, the preferred alternative does not adequately address the most pressing issues facing both YNP and GTNP. The Preferred Alternative would allow for the plowing of the West Yellowstone road to facilitate automobile access, thereby causing additional habitat fragmentation. Moreover, the Preferred Alternative would only serve to transfer

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snowmobile pollution, noise, and congestion to other road segments in the Park. The Preferred Alternative would move the CDST into the back country, setting a dangerous precedent, especially in light of the fact that the impacts associated with such motorized use has not been determined. The Preferred Alternative will also lengthen the winter season and increase number and size of warming huts available for public use which may adversely impact wildlife.

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TOPICS OF CONCERN

Wildlife

Plowed Roads: Table 4 of the DEIS notes that Alternative C would have moderate to major impacts for ungulates and could affect survivability in the long-term. But such impacts are also possible, though not identified, under Alternative B as it also increases the miles of plowed roads as compared to the No Action Alternative. Page 25 of DEIS notes that plowing operations as per the Preferred Alternative could prohibit wildlife from exiting the road corridor. NPS has not studied wildlife injuries or nonsurvival due to increased energy expenditure (page 184). However, assuming that animals will be trapped by snow berms, specific impacts on various wildlife species should be determined.

Wildlife/Automobile Collisions: Table 4 of the DEIS notes that Alternative C would have the potential for increasing vehicle/animal collisions. But such impacts are also possible, though not identified, under Alternative B as it also increases the miles of plowed roads as compared to the No Action Alternative. However, the DEIS states that animal/vehicle collisions under the Preferred Alternative will be mitigated by prohibiting late night oversnow travel in YNP (11 PM to 5 AM) and by prohibiting travel on the CDST from 8 PM to 5 AM (page 27). However, on page 203 the DEIS states that the travel restrictions associated with the Preferred Alternative would be negligible in reducing collisions because less than 1% of the recorded motor vehicle accidents have occurred between these hours. Alternative F proposes reducing the potential for vehicle/wildlife accidents by prohibiting motorized travel from sunset to sunrise (page 36). If the travel restrictions under the Preferred Alternative are admittedly ineffectual, they should be revised as per the restrictions under Alternative F.

Warming Huts: The proposed warming huts will be located in thermally-influenced areas used by a variety of species during the harsh winter months. The warming huts will increase human use in otherwise unused potential habitat which may cause displacement and avoidance of the areas by lynx and ungulates alike, and may affect bison and elk carcass availability for wolverines and fishers in areas of currently low human use. The DEIS states that negligible to minor impacts are expected on all species, although lynx require unfragmented habitat and virtually nothing is known about the habitat requirements of wolverines and fishers (pages 187-190). Since the impacts associated with the warming huts are not well documented, any additional traffic (vehicular and/or pedestrian) that results due to the adoption of a preferred alternative warrants detailed analysis.

Grizzly: The Preferred Alternative notes that the winter season for oversnow routes would run from mid-December to mid-March (page 29). However, page 121 of the DEIS states that spring emergence dates range from mid-February to mid-April and Alternative F recommends shortening the winter season to early March (page 38). Since the winter season proposed under the Preferred Alternative may conflict with grizzly bears emerging from denning, the winter season should be

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shortened (rather than lengthened) to prevent human/grizzly conflicts.

Bison: Table 4 of the DEIS states that the effect on bison as an ethnographic resource would likely be minor. The basis for this assertion is not clear since page 193 of the DEIS then states that bison would continue to be adversely impacted by winter recreation. The DEIS notes that Indians consider the presence of recreational equipment and users in the general vicinity of the bison to be disrespectful of the animals. However, NPS notes that consultation with representatives of the affiliated American Indian tribes would continue in order to insure their interests and concerns would be incorporated. However, as page 116 of the DEIS admits, management removals are one of the main causes of bison mortality. Since bison continue to be detained and killed, the NPS apparently consults with tribal authorities and then proceeds to discount their interests. If this process is to be anything more than mere lip service, the NPS needs to develop a better plan for managing bison and truly take Native American interests into account.

Page 18 of the DEIS states that the decision regarding the closure of road segments was deferred because baseline information on wildlife movements still needed to be gathered before the effects of closing the road segment could be evaluated. However, page 116 of the DEIS notes that bison movement has shifted due to their use of groomed roads, and such dispersal leads bison into areas outside YNP (page 166). Clearly, the NPS is aware of the impacts of roads on bison, yet the Preferred Alternative does not adequately address the needs of bison. To date, paranoia regarding brucellosis rather than scientific expertise has dictated the direction of bison management in YNP. The winter use plan should address road grooming as bison migration patterns and management removals are directly linked.

Bighorn Sheep: According to the DEIS, the bighorn herd in GTNP is a low quality, remnant population, geographically isolated from other herds, and persists in a harsh environment. Another small band of sheep from a separate population also use the Gros Ventre River and the cliff area near Kelly. The DEIS notes that there may be some limited interchange between the different herds. A NPS study concluded that travel by snowmobilers and cross country skiers on or near existing or potential bighorn winter range can be particularly harmful and result in physiological and psychological stress on bighorn sheep (page 118-119). The DEIS notes that the effects of human activities in the Teton Range have to be reduced if the bighorn population is to be retained. Since bighorn sheep populations are currently experiencing a great deal of difficulty, no potential adverse impacts should be tolerated. Any alternative adopted should incorporate measures to prohibit human activities in key bighorn winter range.

Lynx: The DEIS notes that lynx abundance is low and that the species needs travel corridors in order to access to snowshoe hare denning areas (page 124). Yet the DEIS states that any adverse impacts associated with the Preferred Alternative are minor. But if the lynx population is low, any loss from the population is likely significant. Therefore, NPS

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should analyze lynx population levels and habitat requirements before adopting an alternative that might negatively impact the corridors relied upon by this species.

Eagle: The DEIS recognizes that bald eagle activity is greater along streams that remain ice free and in thermal influenced areas, and that the raptors are sensitive to human activities. Although the DEIS notes that winter recreation use along road corridors may cause eagle avoidance of prime nesting habitat, the Preferred Alternative provides little in the way of mitigation. In GTNP, nests are only protected as discovered (page 122) and no proactive steps are taken to protect this species. Therefore, impacts associated with the Preferred Alternative were not adequately discussed and should be addressed in more detail.

Other species: The Preferred Alternative does not adequately address impacts on Cutthroat trout, Trumpeter Swans, moose, Sagebrush lizards, and a host of other species. Contrary to the assertions throughout the DEIS, habitat fragmentation is not a negligible to minor impact for many species.

Noise

Snowmobiles can be heard as far as 10 miles into the wilderness. Yet the DEIS only discusses levels of natural quiet for humans (page 126-129). Page 172 of the DEIS notes that if a sound would be audible 50 percent of the time or more, it was considered to constitute a major impact on natural quiet. The wildlife that resides in the park is subjected to the noise of snowmobiles all winter. Yet, the impact of noise on wildlife is not addressed. It is critical to assess such impacts since the Preferred Alternative will increase snowmobile use in lesser used areas of YNP.

Air Quality

Page 96 of the DEIS discusses impacts to operators from air quality degradation associated with snowmobile emissions. Again, the wildlife that resides in the park is subjected to poor air quality all winter. Yet, the impact of air pollution on flora and fauna is not addressed. Such impacts should be addressed if any type of snowmobile use is being considered in either of the parks.

Water Quality

On page 25 of the DEIS, the NPS states that sand would continue to be used on plowed roads. Under the Preferred Alternative, the DEIS notes that sand would enter the Madison and Firehole Rivers and their tributaries, as these water bodies parallel road segments (page 206). The DEIS admits that sand would cause turbidity and an unnatural substrate deposition, but that it was unknown how this may affect the aquatic resources found in these waterways. This is not a sufficient analysis. The impacts associated with sedimentation must be identified prior to adopting any winter use plan.

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Page 109 of the DEIS states that "snowpack samples from groomed road snowpacks had higher levels of ammonia and sulfate than those taken from roadways, indicating direct source deposition from snow machines". Page 180 of the DEIS goes on to state that further studies on snowpack and snowmelt chemical analyses are being conducted to determine the effect, if any, of 2-stroke engine emissions on water quality. Most of the roads in YNP parallel river, lakes and other waters. Therefore, any spilled or leaked petroleum products or emission from combustion of fuels would be deposited directly in surface waters during the thaw process, adversely impacting several aquatic species of concern. Again, the impacts associated with potential water quality degradation must be identified prior to adopting any winter use plan.

Geothermal Resources (see wildlife above)

Page 138 of the DEIS states that thermal areas attract large mammals, especially in winter when elk and bison feed near the hot springs. In addition, NPS recognizes that geothermal resources are particularly sensitive because of the length of time it takes for such resources to recover from human abuse (pages 178-179). However, regardless of the potential impacts associated with an increased number of visitors in geothermal basins, the Preferred Alternative proposes the addition of warming hut facilities at both Signal Mountain and Jenny Lake (page 30 and page 204). The DEIS states on page 205 that the new warming huts will cause a minor degree of wildlife displacement and avoidance from geothermal features. It is not clear how NPS arrived at this determination. The DEIS then goes on to state that if winter visitor use is causing direct long term impacts to geothermal features, then those impacts must be mitigated or the features would be closed to visitors (page 205). Since impacts to geothermal resources are by definition long term (permanent), it seems imprudent to propose additional warming huts without a full analysis of impacts. Moreover, new facilities such as warming huts should be analyzed via a site specific EIS.

Plowed Roads/Groomed Trails (see wildlife above)

In YNP, 184.6 miles of roads are groomed, 56 miles are plowed and 14.2 miles are closed to winter travel. Many of these plowed and groomed roads support abundant wildlife populations, including bison (page 136). According to the DEIS plowed roads cause injury and death to ungulates and other species, habitat fragmentation¹, structural barriers in the form of snow berms, displacement from preferred habitat and causes wildlife to expend extra energy which reduces individual's chance of survival (pages 182 and 209). The DEIS admits that the greater the extent of vehicle routes through the parks, the greater the total area impacted (page 193). Yet the Preferred Alternative calls for the plowing of more road segments. No additional road segment should be plowed.

¹ In YNP, plowed winter roads cross bighorn sheep winter range and inhibit the movement of moose (page 183).

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Groomed road segments may also impact wildlife in both positive and negative ways. However, the creation of groomed trails which would encourage greater snowmobile use is not warranted. In particular the Preferred Alternative calls for providing the CDST on a separate route that will likely attract more snowmobile users to GPNP (page 198). The impacts associated with separating the modes of winter travel would effectively be doubled for many wildlife species (page 209). Therefore, the CDST should be closed to further use.

Off-Road Use

DEIS seems to contradict itself. First, under subnivian fauna it states: "Because motorized use to YNP is restricted to the road footprint and in GTNP to the road or its margin, there is no dispersed off-road use, and therefore, no significant impact on subnivian fauna" (page 83). On the very same page, the DEIS states: "Damage to vegetation from off-trail winter recreation activities has been documented in a number of studies." Table 11 supports the latter assertion over the former as NPS recorded 19 incidents of snowmobiles entering a closed area, 10 incidents of off-road travel, and 10 incidents of suspected intrusion. And of the 890 citation issued to snowmobilers: 18% were issued for off-road travel and 5 percent were issued for entering closed areas. Therefore, NPS should not readily dismiss the impacts associated with off-road snowmobile use. For example, the DEIS states that disturbance of den sites is not a concern because snowmobiles are required to stay on designated roads, and because of the distance of most potential denning habitat from roads (page 186). However, this may not reflect the reality on the ground. It is important that off-road impacts be fully analyzed.

Socio-Economic Impacts

The socioeconomic impact analysis on pages 87-89 of the DEIS is not adequately supported with hard data and is generic in nature. Although winter use estimated expenditures represent only 0.5 percent of the total expenditures, the DEIS paints a picture of extreme reliance on winter tourism². The DEIS states that retail trade and services accounted for about 42% of the 17 counties combined earnings and that recreation and tourism are key to the economic vitality of the area. But some of the earnings from retail/services are generated from the area itself, not solely from tourism. The analysis also does not adequately differentiate winter from summer recreation expenditures, nor does it account for recreation expenditures due to other attractions, such as MSU and visitation to national forests. The projected losses under the Preferred Alternative do not adequately take other economic opportunities into account, such as an increase in other types of visitors. Alternatively, the Citizens' Solution recommends awarding snowcoach concessions to gateway businesses to help their transition away from snowmobile rentals (see Citizens' Solution below).

Visitor Use

About 66% of respondents to the 1999 winter visitor survey either agreed or strongly agreed with the statement "visitors should have the opportunity to have mechanized winter access to YNP" (page 91). The survey itself is statistically biased since the vast majority of winter visitors are in fact snowmobile users. Moreover, the EIS process is not supposed to be based upon the desires of one small group of people. The goal is to identify impacts associated with proposed alternatives. It is telling that the NPS has undertaken a multitude of visitor surveys, yet baseline wildlife studies have not been undertaken. Visitor use (or in this case, pre-existing users) should not drive the EIS process.

Citizens' Solution for Winter Access to Yellowstone

According to the DEIS, the Preferred Alternative would provide a winter experience where none was previously available. However, NPS admits that the magnitude and impacts associated with this alternative is unknown. Instead, AWR supports the Citizens' Solution as this plan would prohibit the plowing of the road to Old Faithful, close the east entrance and allow only snowcoaches in YNP. The prohibition on snowmobile use would prevent a shift in snowmobile users from the West to the South entrance (page 218). In GTNP, the Citizens' Solution would close the CDST and phase out snowmobiles except for administrative use and to access private residences³. The Citizens' Solution also limits off-trail backcountry skiers and snowshoers where

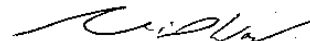
² Although 1400 snowmobiles are available for rent in West Yellowstone, it is not clear how many businesses/employees are actually involved in this industry and what percentage of their customers use YNP (as opposed for USFS lands).

³ However, 2 stroke engines should be banned, decibel levels reduced to 60, and only ethanol blend fuels and synthetic low emission motor lubrication oils used.

impacts to wildlife would be adverse. And equally important, the Citizens' Solution advocates further studies to determine human carrying capacity and wildlife needs.

AWR appreciates the opportunity to comment on the Winter Use Plan DEIS for Yellowstone and Grand Teton National Parks. Due to the adverse impacts associated with the Preferred Alternative outlined in the DEIS, AWR strongly urges NPS to adopt the Citizens' Solution for Winter Access to Yellowstone as the Preferred Alternative.

Sincerely,



Michael Wood
Staff Attorney, Ecosystem Defense Program Director

ALLIANCE FOR THE WILD ROCKIES
<p>Page 1 and 2. Re: It is clear that the preferred alternative will not address the most pressing issues. All alternatives in the DEIS meet the purpose and need for action to a greater or lesser degree. An identified gap between existing conditions and desired conditions form the basis for the purpose and need for action. This purpose is represented by the desired condition shown on page 3 of the DEIS. The underlying need (§1502. 13) is defined by the existing conditions expressed on page 4. Despite the complexities introduced by multiple goals and multiple issues, all alternatives represent possible actions that meet the underlying purpose and need. A decision maker may set the scope of analysis and the decision to be made within the constraints of those dictates.</p>
<p>Page 2. Re: Based on air quality impacts alone, snowmobiling is not consistent with the park's management objectives. The impacts in question are not on their face indisputable, and it is the function of an EIS to focus the issues by addressing those impacts as well as possible. Where management that serves the enjoyment of the people steps over a line in respect to resource preservation, the action to be taken is clear. It is that line, or threshold, that is not often clear. It is up to the decision maker to weight the available data and make the determination of what exactly constitutes impairment. Additional air quality analyses and modeling, formerly unavailable for inclusion in the DEIS, will be included in the FEIS.</p>
<p>Page 2. Re: Conflicting statements in the DEIS, lack of hard data and gaps in the data, so NPS should err on the conservative side when adopting a preferred alternative. An EIS is not, per se, a scientific analysis. It is intended to disclose environmental effects over a range of alternatives, in which the analyses must demonstrate scientific integrity by disclosing methods and making explicit references to sources used (40 CFR 1502. 24). The DEIS does this. CEQ regulations also allow for incomplete or unavailable information, by describing procedures that are to be following in these instances (§1502.22). Any identified gaps in the FEIS will follow the requisite procedures.</p>
<p>Page 2. Re: Flawed alternatives – measures that protect resources, increase public safety and interpretation opportunities should be included in all alternatives. It is within the discretion of the decision maker to set the range of alternatives to be considered. The final selected alternative that is to be documented in a record of decision may mix features from the range of alternatives evaluated in the final EIS. Such mixing can occur as long as the mixed features are consistent with one another, and as long as the effects of such an alternative would not fall outside the range of effects disclosed in the EIS. If the features that the commenter did not support were to be deleted from the range of alternatives, then the analysis would be left only with features that the commenter likes or agrees with. If only the actions that are liked by the commenter remain, then there is effectively only one alternative, or a set of alternatives that are not significantly different. There is a very clear separation between alternatives legitimately considered in an analysis and the expression of a preferred alternative or the decision to be made.</p>
<p>Many suggestions for alternatives or alternative features were made in the thousands of comments received. A great deal of criticism was leveled at the current range of alternatives because people did not like the way features were “mixed.” It is clear that for such complex issues there could be an infinite number of possible alternatives. CEQ states that in such instances, the agency need only consider a reasonable number of examples that cover the full spectrum of possible alternatives that meet the purpose and need (Question 1b, CEQ 40 Most-Asked Questions). What constitutes a reasonable range depends on the nature of the proposal and the facts in each case, where the proposal is at the discretion of the agency. Under the CEQ regulations, the requirement in an EIS is to provide a range of reasonable alternatives that clearly define the issues, and to fully evaluate and disclose the possible effects of those alternatives. The DEIS meets this requirement.</p>
<p>Page 3. Re: Features of the preferred alternative may adversely affect wildlife. The analysis in the DEIS discloses the impacts to wildlife associated with the preferred alternative. The determination as to whether or not these impacts constitute an impairment or derogation of park values (wildlife, in this case) is made by the decision maker when formulating the Record of Decision.</p>
<p>Page 4. Re: Animals will be trapped by snow berms. The DEIS discusses the impacts associated with snow berms along the plowed road corridor, and suggests mitigation (p. 209). NPS and the commenter disagree on whether or not a so called tunnel effect would result from plowing. In many other areas within and outside the 3 park units, roads are plowed and no tunnel effect exists.</p>

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Page 4. Re: Preferred alternative does not identify the risk of vehicle-animal collisions under alternative B although there is an admittedly ineffectual mitigation measure proposed. The DEIS discusses vehicle-animal collisions on page 209 for the preferred alternative. See response below.
Page 4. Re: Revise travel restrictions under the preferred alternative to the period from sunset to sunrise. This suggestion is within the range of alternatives that the decision maker may choose among. Please see response, "Page 2. Re: Flawed alternatives..." for a discussion of "mixing" alternative features.
Page 4. Re: Impacts associated with warming huts are not analyzed. Impacts associated with warming huts are discussed for each alternative under the heading "Presence and use of winter supporting facilities".
Page 4. Re: Shorten the winter season under the preferred alternative to protect grizzlies coming out of hibernation. This suggestion is a feature of alternative F and is therefore within the range of alternatives that the decision maker may choose among. A discussion of the impacts of winter use on grizzlies during the pre and post denning periods is included in the biological assessment and will be incorporated into the FEIS.
Page 5. Re: Effects on bison as an ethnographic resource – NPS needs a better plan for managing bison rather than lethal control. The NPS is working to ensure that the Winter Use Plan and the Bison Management EIS/Plan are coordinated and that analyses are parallel and consistent in regard to the effects of winter use on bison. The Bison Management EIS/Plan addresses the issue of bison removals.
Page 5. Re: Address the effects of road grooming on bison migration patterns. In an effort to better understand the relationship of bison movements and the use of the winter groomed road system, managers have instituted studies that address this issue. While groomed roads may have contributed to the redistribution of bison within park boundaries (Meagher 1997), it appears that bison tend to use waterways and off-road trails for much of their travel on the west side of the park (Bjornlie and Garrott 1998), and that much of their movement toward park boundaries may occur on such routes. Monitoring of bison movements in the Hayden Valley and Mammoth to Gibbon Falls sections of the park has found that less than 12% of bison movements occurred on the groomed road surface (Kurz et al. 1998, 1999). However, groomed roads may have allowed larger numbers of bison to exist in the park than in the absence of groomed roads, by allowing access to otherwise unavailable foraging areas, and westward redistribution early in the winter may predispose some bison to exit the park (Meagher 1997). Therefore, closing of groomed roads could have the effect of reducing population size and shifting distribution back to patterns observed before grooming, thereby possibly reducing the magnitude of bison movements outside park boundaries. Conversely, bison are highly social and appear to retain and pass along knowledge through generations, so it is possible that closing groomed roads may not impact bison movements and distribution (Meagher 1985). Research is currently being conducted to better understand the relationship between road grooming and bison movement and distribution patterns.
Page 5. Re: The adopted alternative should protect bighorn sheep. Alternative G identified in the FEIS will include restrictions on backcountry travel in bighorn sheep areas.
Page 6. Re: Analyze lynx population and habitat needs. The biological assessment contains a lengthy discussion and analysis of lynx. This information will be included in the FEIS as well.
Page 6. Re: Include mitigation to protect eagles. The biological assessment contains a lengthy discussion and analysis of bald eagles. This information will be included in the FEIS as well.
Page 6. Re: Adequately address impacts to wildlife species, especially effects of fragmentation. There will be an expanded species of concern and bison discussion in the FEIS. Habitat fragmentation is discussed, by alternative, as a possible outcome of plowing and grooming roads. CEQ regulations do not require exhaustive and voluminous discussion (§1500.4(f)). The amount of detail to be included in an EIS should be that level which is relevant to the decision to be made, and the NPS believes it has adequately met this requirement.

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Page 6. Re: Analyze the effects of noise on wildlife. Because quantifying the effects of non-natural sound on animals in the wild (as opposed to a controlled laboratory setting) is extremely difficult, NPS believes that analyzing the effects of machine noise on ambient sound levels is a legitimate substitute and can be used to infer effects on wildlife. NPS also believes that the effects of noise on wildlife are inherently included in the overall effects of snowmobiles on wildlife in terms of disturbance. Nonetheless, a review of the impacts of noise on wildlife will be included in the FEIS.

Page 6. Re: Address impacts of air pollution on flora and fauna. The evaluation of pollution impacts by alternative is presented in the environmental consequences section of the DEIS. This analysis will be enhanced in the FEIS using results from air quality and modeling.

Page 6. Re: Effects of sand on sedimentation of waterways should be addressed. There is a greater amount of final study information available to the NPS for inclusion in the FEIS than was available prior to the publication of the draft. Water and aquatic resources sections will be updated in accordance with this data.

Page 7. Re: Effects of emissions on water quality should be addressed. The DEIS discusses this issue under the effects on water resources for each alternative and in the environmental consequences section. Additional information has become available (Ingersoll, *Effects of Snowmobile Use on Snowpack Chemistry in Yellowstone National Park, 1998*) since publication of the DEIS, and will be incorporated into the final document.

Page 7. Re: How did NPS determine that new warming huts would only cause minor impacts to wildlife? See pages 169-170 for a description of the methods used to assess impacts on wildlife. The effects of warming huts on lynx are assessed in the biological assessment; this discussion will be incorporated into the FEIS. Warming huts are expected to cause minor impacts because they will be located in the front-country at trailheads where visitor use already occurs. Site-specific analyses will be conducted before any construction begins, and the public will have the opportunity to comment.

Page 7. Re: A full analysis of impacts to geothermal areas is necessary, including site specific EIS. The EIS analysis is aimed at developing a programmatic plan for winter use (§1508. 18 (b)(2)). There is no burden to develop site-specific information to support a programmatic planning document.

Page 7. Re: The DEIS “admits” that plowed roads cause impacts yet proposes additional plowed roads in the preferred alternative. Many comments restate the disclosure of effects present in the DEIS. Some commenters refer to any disclosure of an impact as NPS’ “admitting” that an action would cause harm. Readers should understand that it is the purpose of an EIS to disclose the possible effects of a proposed action and alternatives to it. References in comments to the “justification” for a preferred alternative is an entirely different issue relating to the decision to be made. Comments expressing opposition or support for an alternative feature are not responded to by changing an alternative or a preference.

Page 8. Re: Close the CDST because the impacts on wildlife are too great. The commenter’s opinions will be considered in making the final decision, but that there is nothing in those opinions that substantively would alter the range of alternative features to be evaluated in the Final EIS. It will be up to the decision maker to weigh the available data, evaluate the possible impacts of each alternative, and decide if park resources, including wildlife, are impaired. The impacts in question are not on their face indisputable, and it is the function of an EIS to focus the issues by addressing those impacts as well as possible. The new preferred alternative eliminates snowmobiling in the parks.

Page 8. Re: Snowmobiles violate closed areas and cause adverse impacts. Occasionally snowmobiles leave the groomed surface and travel alongside the road or enter closed areas. These violations are cited by NPS rangers. NPS does not regard this as a usual occurrence, but recognizes the potential for adverse impacts.

Page 8. Re: Off-road impacts need to be analyzed because of the above mentioned violations. See previous response.

Page 9. Re: Socioeconomic impact analysis on pages 87-89 is not adequately supported with hard data and is too generic. NPS disagrees. The analysis is sufficient for producing a programmatic plan, which is general in nature. There is a considerable amount of data invoked in this analysis.

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Page 9. Re: The socioeconomic analysis does not adequately differentiate winter from summer recreation expenditures, nor does it take into account expenditures due to other attractions. The discussion of the existing condition focuses explicitly on winter visitation. Tables five and six are presented as a context, considering the total economy, for comparing economic impacts associated with winter use in the various alternatives.

Page 9. Re: The projected losses under the preferred alternative do not take into account other economic opportunities such as an increase in other types of visitors. This is true. The economic analysis is conservative in that it shows small and negligible economic impacts over the regional economy and the 17-county economy, even if other types of visitors do not choose to come. If other types of visitors come, the various economies are only improved.

Page 9. Re: Visitor use survey was biased, visitor use should not drive the EIS process. The surveys do not drive the process – they represent information available to assess impacts. As this survey information is reported or cited in the DEIS, the limitations of the survey are made evident. Additional survey information is now available for the FEIS, and those data will similarly be accompanied by assumptions and survey limitations. The data is used to report impacts, primarily those involving visitor experience and social and economic environments. This is entirely appropriate under NEPA. The final strategy, or decision, is based on selection criteria used by the decision maker, which are disclosed in the record of decision through discussion of “preferences among alternatives based on relevant factors including economic and technical considerations and agency statutory missions” (§1505. 2(b)).

Page 9. Re: Support for the Citizen’s Solution. Expressions of support or objection to specific alternatives or alternative features will be responded to when the decision criteria are developed, and accordingly, when the rationale for the decision is presented in the Record of Decision.